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Valve for controlling fluids

Patent Assignee: BOSCH GMBH ROBERT (BOSC)

Inventor: BOECKING F; POLACH W

Number of Countries: 021 Number of Patents: 005

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
DE 19826339	A1	19991216	DE 1026339	A	19980612	200010 B
WO 9966197	A1	19991223	WO 99DE662	A	19990311	200010
EP 1029174	A1	20000823	EP 99913115	A	19990311	200041
			WO 99DE662	A	19990311	
CZ 200000514	A3	20001213	WO 99DE662	A	19990311	200103
			CZ 2000514	A	19990311	
US 6333586	B1	20011225	WO 99DE662	A	19990311	200206
			US 2000485542	A	20000214	

Priority Applications (No Type Date): DE 1026339 A 19980612

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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DE 19826339	A1		8	F16K-031/56	
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WO 9966197	A1	G		F02M-059/46	
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Designated States (National): CZ JP US

Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LU

MC NL PT SE

EP 1029174	A1	G		F02M-059/46	Based on patent WO 9966197
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Designated States (Regional): DE FR GB IT

CZ 200000514	A3			F02M-059/46	Based on patent WO 9966197
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US 6333586	B1			H01L-041/04	Based on patent WO 9966197
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Abstract (Basic): DE 19826339 A1

NOVELTY - A valve for controlling fluids has a valve member (40) which can be operated against a restoring force at least indirectly by a piezo-actuator (53) that has a piezo-element (56) supporting itself with its one end side (58) in a housing (2).

DETAILED DESCRIPTION - The element executes a change of length with a change of voltage applied to it that is transmitted by means of the other end side (57) of the element to the valve member for its adjustment. In the heat flow from the piezo-actuator to a heat-diverting part of the housing, a Peltier element (62) is connected which is controlled by an electrical control device so that temperature-conditioned length changes of the piezo-actuator are compensated at least in part with respect to those of the housing accommodating the piezo-actuator.

USE - Fluid flow control valve.

ADVANTAGE - A simple valve that is operated directly by the piezo-actuator.

DESCRIPTION OF DRAWING(S) - The drawing shows a vertical cross-section through a valve and piezo-actuator.

Housing (2)

Valve member (40)

Piezo-actuator (53)

Piezo-element (56)

Ends of piezo-element (57,58)

Peltier element (62)

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Title Terms: VALVE; CONTROL; FLUID

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